

BULLETIN

ESSEX INSTITUTE,

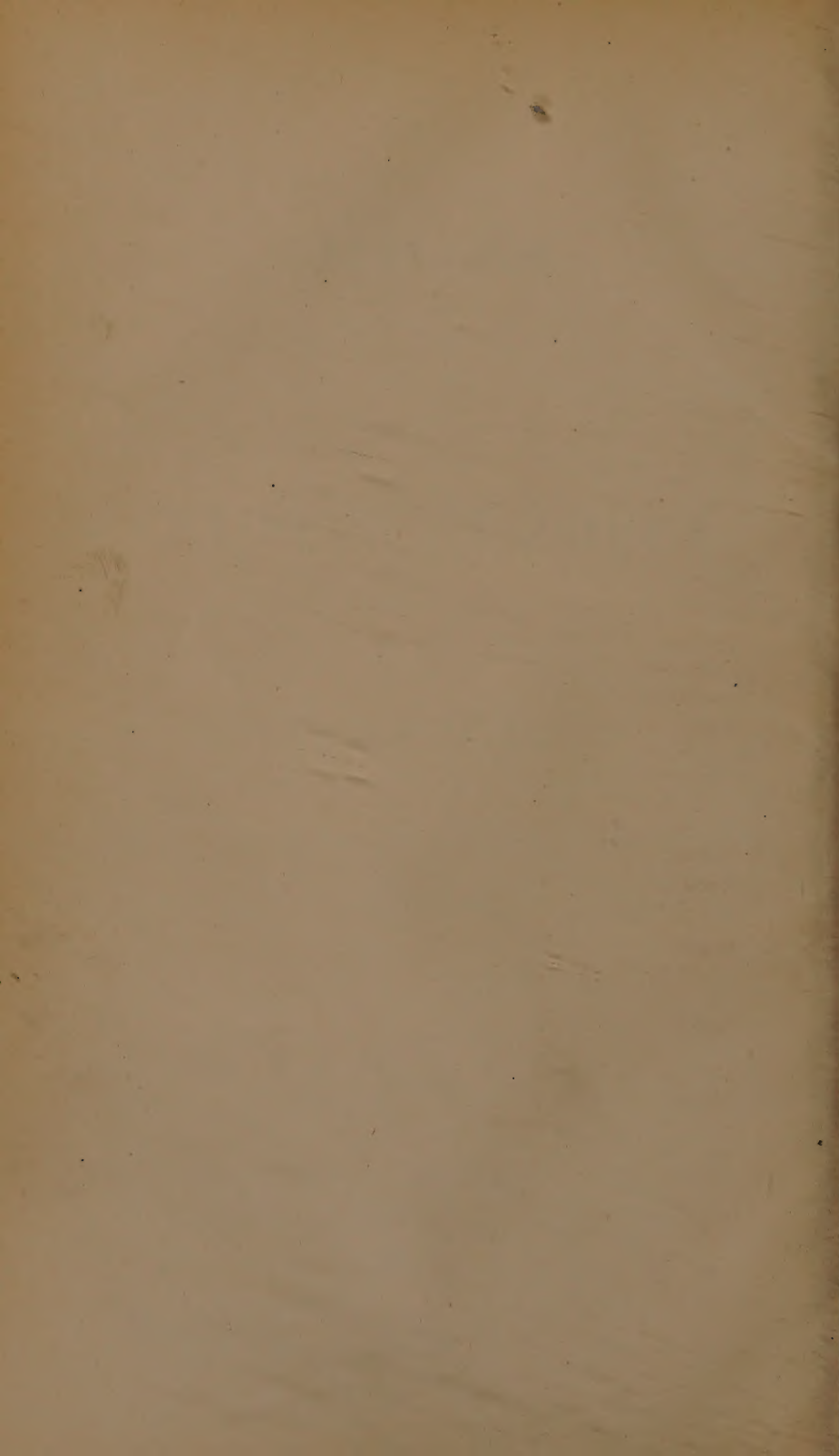
VOLUME III,

1871.

SALEM, MASS.

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BULLETIN

OF THE

ESSEX INSTITUTE.

VOL. 3. SALEM, MASS., JANUARY, 1871. No. 1.
One Dollar a Year in Advance. 10 Cents a Single Copy.

REGULAR MEETING, MONDAY, JANUARY 2, 1871.

THE President in the chair. Records of preceding meeting read.

Dr. A. S. PACKARD, Jr., referring to the fine specimen of Triassic fossil fish *Catopterus gracilis* Redfield, presented this evening by Mr. Russell, stated that he had during the past autumn visited the locality at Sunderland, Mass., which is exposed at low water. The fine blackish slates were in nearly horizontal beds and the fish remains were quite abundant. At Turner's Falls, about ten miles north of Sunderland, he had visited a large and very complete collection of bird tracks belonging to Mr. T. M. Staughton. The collection included some fine fossil tracks, and plant and insect remains, the latter occurring in nodules at a locality three miles north of Turner's Falls. The insect remains were of one species of an aquatic larva, which had been referred to the Ephemerae by Dr. J. L. Leconte, and called *Palephemera mediæva*, by Hitchcock. On an examination of specimens showing well the head and extremity of the body, Dr. Packard thought they were rather aquatic coleopterous larvæ, belonging perhaps

near the family Heteroceridæ. Among the fossil plants were sprigs of a supposed coniferous tree, *Voltzia*, a characteristic Triassic plant in Europe.

Dr. Packard also gave an account of the discovery of organs of special sense in the abdominal appendages of *Chrysopila*, a fly allied to *Leptis*. He thought they were possibly olfactory organs, like those he had discovered in the jointed abdominal appendages of the cockroach. He referred to similar little sacs situated in the palpi of *Perla* next the mouth, and thought they were perhaps organs of smell.

Prof. A. E. VERRILL, of Yale College, gave a brief sketch of the marine fauna of Eastport, Me., and spoke of the unusually favorable opportunities for collecting.

MARINE FAUNA OF EASTPORT, ME.

Eastport Harbor is somewhat quadrangular in form, about one and a half miles wide and three long, partially bounded on the east and south by the Island of Campo Bello, which is about nine miles in length, and on the west by Moose Island, on which Eastport is situated, while on the north-east it is protected by Deer Island, Indian Island, and numerous smaller islands. It has four outlets. The largest and deepest is the broad channel between Campo Bello and Indian Island, which is 40 to 70 fathoms deep and communicates directly with the Bay of Fundy. In this channel the tides flow with great velocity and power, and the bottom is stony and ledgy throughout, in some cases consisting of smooth, nearly clean, round stones, like paving-stones, on which only a few Foraminifera, Bryozoa, Ascidians, and Actiniæ can maintain a permanent home. Between Deer Island and Indian Island on the east and Moose Island on the west, there is another broad and deep channel, in some places 50 to 60 fathoms deep, with a rough, rocky bottom. This channel is several miles in length and communicates with the Bay of St. Andrews at the mouth of the St. Croix River. This bay is about 15 miles across, and consequently an immense volume of water must pass through the channel during every ebb and flow of the tide, which produces so powerful a current that it is useless to attempt to row a boat of any kind against or across the current, except when it slacks near high or low water. Dredging in

this channel is somewhat difficult, on account of the swift current and rough bottom, and can hardly be attempted with safety when the tide is flowing with its full force. The fauna is, however, very remarkable as showing the influence of physical conditions on animal life, for here, at the depth of 40 to 60 fathoms, we dredged nearly the same assemblage of animals that are found on the opposite rocky shores, between high and low water mark, together with many of the same forms of sea-weeds. Among the more abundant species were *Mytilus edulis*, *Modiola modiolus*, *Mya arenaria*, *Saxicava arctica*, *Buccinum undulatum*, *Ascidia complanata* Fab. (*A. callosa* St.), *Cynthia pyri-formis*, *Boltenia reniformis*, various species of Bryozoa and Hydroids, *Ophiopholis aculeata*, *Asterias vulgaris*, *Cribrella sanguinolenta*, *Euryechinus Dröbachiensis*, *Pentacta frondosa*, *Cancer irroratus*, *Thelphusa circinnata* (*Lumara flava* St.), etc. There was, in fact, scarcely anything in the dredgings brought up from the deepest parts of this channel that would have indicated a depth of more than one or two fathoms below low water mark, along the shores, and most of the species can readily be obtained at low water of ordinary tides. This is doubtless due to the powerful current which rushes through the channel like a rapid river, and flowing over the rough and irregular bottom, completely mixes up the water from top to bottom, so that there is really no appreciable difference in the temperature or other conditions of the water of the bottom and surface. A third channel, which is narrower and quite shallow, connects the southern end of the harbor with the Bay of Fundy, passing between Campo Bello on the east and Treat's Island and Lubec on the west. This channel is sufficiently deep for the Boston steamers and large vessels at high water, but after half-tide is not safe except for small craft, and sometimes, at extremely low tides, it becomes nearly bare. The bottom is mostly muddy and soft. A fourth, narrow, but deep, rocky channel, passing between Treat's Island and the southern end of Moose Island, communicates with the extensive bodies of water known collectively as Cobscook Bay, but consisting, practically, of several distinct bays, or fiords, which have received local names. The southern branch, known as South Bay, was pretty fully explored with the dredge. These bays receive and discharge great volumes of water at every tide, nearly all of which passes into and through Eastport Harbor, and together with that which supplies St. Andrews Bay, it mostly comes in and goes out through the channel first described, between Campo Bello and Deer Island. As a result of this arrangement, Eastport Harbor is characterized by a powerful and somewhat complicated system of tides, which can be best understood by examining a chart of the harbor, with the soundings indicated, and comparing the respective channels to river valleys, when it will be found that, as a

matter of course, the most powerful currents will follow the deeper and broader channels, while the smaller and shallower channels will be tributary to them. Counter currents exist along the shores, and areas also exist where opposing currents meet or counteract each other, causing the water to be thrown into violent commotion, or else to be comparatively quiet, according to circumstances. At one point, in the central part of the harbor, we found a large bank, formed where the two principal tide-currents meet, consisting of a nearly uniform mass of comminuted shells and sand, which was almost destitute of life; but where the currents slack, or produce eddies, banks are formed which are very favorable for the development of a great variety of marine animals. Such a bank, covered by 10 to 15 fathoms of water, exists between Treat's Island and Friar's Head. This is composed of broken shells and gravel in most parts, and is a very rich dredging ground. Some of the most common and interesting species found here are *Alcyonium carneum*, *Urticina crassicornis*, in many beautiful varieties, *Astrophyton Agassizii*, *Ophioglypha Sarsii*, *O. robusta*, *Amphiura squamata*, *Asterias Stimpsonii*, and several other species, *Cribrella sanguinolenta*, of many colors, *Solaster endeca*, *Crossaster papposus*, *Pentacta frondosa*, a great variety of Hydroids and Bryozoa, *Terebratulina septentrionalis* (very abundant), *Cynthia pyriformis*, *C. carnea*, etc., *Astarte undata*, *A. lens* (Stimp. Mss.), *Entalis striolata*, *Sipho Islandicus*, *S. pygmaeus*, *Scalaria Grönlandica*, *Acirsa Eschrichtii**, *Margarita undulata*, and many other interesting shells, with numerous worms and Crustacea. Nearer Campo Bello, towards Welch Pool, the bottom becomes muddy and abounds in mud-loving shells and worms. In the broad, shallow channel or bay west of Treat's Island, in 10 to 15 fathoms, a similar assemblage of animals is found, together with some additional ones of great interest. Among the species found here are *Acaulis primarius* St. (attached by a pedicle), *Pteraster militaris*, *Alcyonium rubiforme*, *Lucernaria quadricornis*, *Aphrodite aculeata* (very large), numerous Ascidians, *Pandalus annulicornis*, several species of *Hippolyte*, etc. Another very prolific bank of a similar kind, but composed of coarser gravel, broken shells, sponges, &c., is found at the entrance of South Bay, between Razor Island and the Lubec shore, in 8 to 10 fathoms of water; most of the species already mentioned (including *Pteraster*) are found here, together with numerous other species, many of which are ordinarily found only in much deeper water, showing that depth, of itself, has very little to do with the distribution of marine animals, and that temperature and other local conditions are the main causes which

* This species has not been recorded before from New England. It is not uncommon at Eastport.

affect them. Dredgings were also made in the Bay of Fundy, off the northern end of Campo Bello, where at the distance of four or five miles from Head Harbor, we reached the greatest depth which we could find anywhere within many miles of the shore. There appears to be at this place a depression of the bottom, or a valley somewhat parallel with Campo Bello, in which the depth is 100 to 125 fathoms, with a bottom of fine, soft, sticky mud and broken shells, in most parts. At this place we found *Alcyonium carneum*, *Astrophyton Agassizii*, *Ophiopholis aculeata*, *Ophioglypha Sarsii*, *O. robusta*, *Ophiacantha spinulosa*, *Terebratulina septentrionalis*, *Astarte lens*, *Pecten tenuicostatus*, *Aporrhais occidentalis*, etc. There were, however, very few species not to be found in 10 to 15 fathoms on the banks in Eastport Harbor. On a patch of hard bottom, near this place, in about 100 fathoms, we obtained a few rare and interesting species, among them a new species of a creeping Halcyonoid polyp allied to *Telesto* and *Cornularia*, with comparatively large, white tentacles. Farther out the water becomes shallower all the way to the "Wolves." Since the shores are diversified and the tides very extensive at Eastport (the extreme rise and fall of spring tides being about 28 feet), the opportunities for shore collecting are also excellent. The best localities for this are on the rocky shores at the southern end of Moose Island; north of the village at and near Dog Island; and also on Treat's Island and most of the other small islands in the vicinity; while many mud-loving creatures can be dug up from their burrows in the mud and sand on the extensive flats of Broad Cove, Prince's Cove and other localities. The number and variety of marine animals that can be collected at low water within a few minutes' walk of Eastport is really surprising to persons accustomed to collect on other parts of the coast. Even under and among the lofty wharves a very respectable collection may be made, including at least 200 species, and representing nearly all the classes.

Among the shore species are, of Radiata: *Urticina crassicornis* (mostly of the variety mottled with green and red), *Bunodes stella* (in crevices and under rocks), *Metridium marginatum*, *Edwardsia*, three species, *Peachia parasitica*, *Alcyonium carneum*, many Hydroids, *Ophiopholis aculeata*, *Ophioglypha robusta*, *Amphiura squamata*, *Astrophyton Agassizii* (young), *Asterias vulgaris*, *A. littoralis*, *A. Stimpsonii*, *Stephanasterias albula* V. (*Stimpson* sp.), *Cribrella sanguinolenta*, *Solaster endeca*, *Crossaster papposus* (rare), *Echinarachnius parma* (in sand), *Euryechinus Dröbachiensis* (very abundant on rocky shores at extreme low water), *Pentacta frondosa*, *Thyonidium productum*, rare, *Chirodota leve* (under stones, like the last), *Psolus phantapus*, young, adult rare, *Lophothuria Fabricii* (young common, adult rare, on ledges). Of the Mollusca: *Cynthia pyriformis*, *C. carnea*, *C. echinata*, *Molgula retortiformis* and several other species, *Ascidia complanata*, very abundant, *Cione*

tenella, *Boltonia reniformis*, and several other Ascidians, numerous Bryozoa, *Terebratulina septentrionalis*, a large number of bivalve and univalve shells, among which *Buccinum undulatum*, *Sipho Islandicus*, *Chrysodomus decemcostatus*, *Lunatia heros*, *Purpura lapillus*, *Chiton marmoreus*, *C. ruber*, and *C. albus*, *Mya truncata* and *M. arenaria*, *Saxicava arctica*, *Modiolaria nigra*, and *Pecten Islandicus* are conspicuous. Of Annelids and Nemerteans there are a large number of species, many of which have not yet been identified; among the most interesting of the former are *Nereis grandis* St., abundant and large, found in the mud of Broad Cove at low water, with many other species of *Nephtys*, *Spio*, etc., *Arenicola piscatorum*, living in the same way at Prince's Cove; *Thelphusa circinnata* forming coarse tubes under stones; *Myxicola Steenstrupii*, forming a loose, soft, jelly-like tube; a blood-red species of *Torquea* (?), remarkable for the brilliant blue phosphorescence of its numerous long tentacles; several fine species of *Sabella*, *Terebellidae*, *Glycera*, *Eunice*, *Phyllodice*, *Lumbriconereis*, etc. Among the larger Crustacea are *Cancer irroratus*, *Crangon boreas*, *C. vulgaris*.

The harbor also abounds in Jelly-fishes and many other forms of pelagic animals. Of the former *Cyanea arctica*, *Aurelia flavidula*, *Oceania languida*, *Melicertum campanula*, *Staurophora laciniata*, *Bolina alata*, and *Idya roseola* are very abundant, while other species, such as *Callinema ornata* V., and *Mertensia ovum*, are occasionally seen. Night collecting would doubtless reveal many other species. Among the other pelagic forms are species of *Thysanopoda* and *Mysis*, known to the fishermen as "shrimp," which go in vast "schools" and are the favorite food of herring, young pollock, and other species of fishes, as well as of large flocks of gulls. We also saw, on one occasion, immense numbers of a species of *Sagitta*, besides many minute species of Entomostraca, etc. The fish-fauna is also rich and diversified. The principal fisheries in the vicinity of Eastport are, however, for the common herring (*Clupea elongata*), the hake, haddock, and pollock, while in deeper waters, outside, halibut and cod are also taken. During the time that I was at Eastport last summer, three large specimens of the basking shark (*Cetorhinus maximus*) were taken in the vicinity of Eastport and Lubec, having been left in shallow water by the ebbing tide. These were from 25 to 30 feet in length, and very thick in proportion, and were all males, as was a still larger one, about 35 feet long, caught near Eastport in 1868. This shark, although very powerful, is quite harmless and rather sluggish. The teeth are small and slender, shaped something like shoe-pegs, and the mouth and throat are comparatively small. The liver is very bulky and often yields two or three barrels of oil. Four or five other species of sharks are also not uncommon. The wolf-fish, *Anarrhicas vomerinus*, is frequent on the rocky shores, feeding largely on the sea-urchin (*Euryechinus Dröbachiensis*) and *Buccinum undulatum*.

The TREASURER reported an addition to the funds of sixteen hundred and fifty-four dollars and seventy-eight cents (\$1,654.78), one half of the net proceeds of a fair recently held for the benefit of the Salem Oratorio Society and Essex Institute, by the ladies of Salem, Beverly, Peabody, and other towns in the vicinity. The fair was held in Mechanic Hall, and was opened for the sale of useful and ornamental articles, on Monday evening, October 31, 1870,—and continued through Tuesday and Wednesday, and till 1 P. M. of Thursday. The managers were fortunate in being the first occupants of the hall since the enlargement and reconstruction. The convenience in its several appointments and the beautiful and appropriate decorations added much to the comfort of the managers and assistants, and to the general interest of the occasion. Five numbers of a paper entitled "To-Day," were issued, ably edited and finely printed, containing a full account, in detail, of the organization and proceedings, and also many interesting and valuable communications from the pens of some of our literary and scientific writers.

Several members offered appropriate remarks, and expressed their deep sense of gratitude to those ladies who so generously gave their services on this occasion which was so eminently successful.

The following resolutions were proposed and unanimously adopted.

Resolved, That the sincere and grateful thanks of the Essex Institute be presented to the Board of Management and all others who assisted in the Salem Oratorio and Essex Institute Fair, for the liberal contribution to its funds, reported by the Treasurer this evening.

Resolved, That the Treasurer be requested to communicate a copy of these resolutions to Mrs. E. D. Kimball, the President of the Board.

The following correspondence announced : —

U. S. Dept. of Interior, Dec.; New York Secretary of State, Dec. 21, 24; New York State Library, Dec. 21; Alnwick, Berwickshire Naturalists' Field Club, Oct. 10; Berne, Naturforschende Gesellschaft, Nov., 1869 and Aug., 1870; Cambridge, Corporation of Harvard College, Nov. 28; London, British Archæological Association, Dec. 6, Geological Society, Dec; St. Petersburg, Société Entomologique de Russie, Oct. 6; Zurich, Naturforschende Gesellschaft, May 10; Hamlin, Robert D., Bennington, Vt., Dec. 20; Higginson, Thos. Wentworth, Newport, R. I., Dec. 27; Hotchkiss, Frank E., New Haven, Conn., Dec. 21; Perry, William Stevens, Geneva, N. Y., Dec. 14, 20.

The following additions to the Library reported : —

Historical Papers of the Church in Virginia edited by William Stevens Perry, 1 vol. 4to, privately printed, 1870. Connecticut Church Documents, edited by Francis L. Hawks and William S. Perry, 2 vols., 8vo, New York, 1863-4; Documentary History of the Protestant Episcopal Church in Vermont, 1 vol., 8vo, New York, 1870; Debates of the House of Deputies in the General Convention of Protestant Episcopal Church, 1868, 1 vol., 4to, Hartford, 1868; Reports of General and Diocesan Conventions and various other publications; 11 volumes and 146 pamphlets.

By Donation.

U. S. DEPT. OF THE INTERIOR. Documents 3d Sess. 40th Cong., 28 volumes.
U. S. TREASURY DEPARTMENT, Finance Report for 1870, 1 vol. 8vo.
HARVARD COLLEGE. Treasurer's Statement, 1870, 8vo pamph.
BUTLER, B. F., M. C. Drake's Speech in U. S. Sen., Dec. 16, 1870.
COLE, Mrs. NANCY D. File of the Salem Gazette for 1870.
GREEN, S. A., of Boston. Miscellaneous pamphlets, 75.
HART, CHARLES H., of Philadelphia. A Necrological Notice of the Hon. R. S. Field, LL. D., of Princeton, N. J., Oct. 6, 1870.
HOTCHKISS, FRANK E., of New Haven. Year Book of the City of New Haven for 1870.
LEE, JOHN C. Commercial Bulletin for Dec. 24, 1870.
PAERFRAY, CHARLES W. Miscellaneous pamphlets, 40.
STICKNEY, MISS LUCY W. Cincinnati Directories for 1855, '59, '67, 3 vols. 8vo.
SUMNER, CHARLES, U. S. S. Report of the Commissioner of Agriculture for 1869, 1 vol. 8vo. Acts and Resolutions of U. S., 1 vol. 8vo, 1870. Message and Documents, 4 vols. 8vo. Paraguayan Investigation, 1870, 1 vol. 8vo.
TATE, GEO., of Alnwick, England. The History of Alnwick, Vol. ii., Parts 1 and 2, 1868-69, 2 vols. 8vo. Proceedings of the Berwickshire Naturalists' Club, 1837, '54, '62, '63, '64, '65, '66, '67, '68, '69, 8vo.
WATERS, J. LINTON, of Chicago, Ill. The Press, Jan. 1, 1871.

By Exchange.

BOSTON SOCIETY OF NATURAL HISTORY. Proceedings of, Vol. xiii, Sigs. 20, 21.
LEEDS PHILOSOPHICAL AND LITERARY SOCIETY. Report of the Council, May 4th, 1870, 8vo, Leeds, 1870.
BERNE, NATURFORSCHENDE GESELLSCHAFT. Mittheilungen aus dem Jahre, 1869, 8vo.
ZÜRICH, NATURFORSCHENDE GESELLSCHAFT. Vierteljahrsschrift Redigirt von Dr. Rudolf Wolf. Vierzehnter Jahrgang, 1869, 1 vol. 8vo.

MOSCOU, SOCIETE IMPERIALE DES NATURALISTES. Bulletin Année, 1870, No. 1, 8vo pamph.

PUBLISHERS. Christian World. Eclectic. Essex Banner. Gloucester Telegraph. Haverhill Gazette. Lawrence American. Literary World. Little Giant. Lynn Semi-Weekly Reporter. Medical and Surgical Reporter. Nation. Nature. Peabody Press. Quaritch's Catalogue. Salem Observer. Silliman's Journal. Sothcran's Catalogue.

Augustus P. Hamblet of Salem, was elected a resident member.



REGULAR MEETING, MONDAY, January 16, 1871.

The President in the chair. Records of preceding meeting read.

Mr. JAMES KIMBALL read an interesting communication on the early MILLS in this vicinity, which contained many citations from the records and affidavits on file in the county offices of Essex.

In the formation of a new settlement, attention is immediately directed to secure a regular and sufficient supply of bread stuffs, and every facility in that direction is regarded of the highest importance ; hence the erection of Grist Mills is necessarily the first movement in the introduction of the manufacturing industries. It appears, therefrom, that within four years from the landing of Roger Conant and his companions, and two after the arrival of Endicott, Capt. William Trask, one of the original planters, was the first person who applied our water power to economic use, in the erection of a mill, on a small brook running into the North River, near the crossing of the highway in the vicinity of the Railroad Station in Peabody, called Gardner's Brook. Here upon the narrow outlet of this stream a rude dam was constructed of logs with a power only sufficient for the most

primitive kind of mill. The first machinery was for pounding or beating corn, a mortar mill, as it was afterwards called.

Various changes were made at different times in the construction and uses of the building or buildings on this foundation; in 1692 it was rebuilt for a Fulling Mill—several mills of this character were erected on the small streams in this county during the colonial and provincial periods in our history. It further appears, that, at an early date, several families located in this neighborhood, which was considered a desirable place for a settlement, hence the necessity of erecting and maintaining the bridge at the "Town's End," alluded to in the records of that period. In 1640, Capt. Traske* obtained permission, and some years after erected a mill about half of a mile lower down the river, and opposite his house (in the rear of 158 Boston street); not liking that place, in a short time, he moved it again half of a mile further down, making it one mile from the location of the first mill. This was used by himself and his descendants for many years, when it passed into other hands. During the latter part of the last and the first half of the present century it was under the direction of William Frye, father and son, and was familiarly known as "Frye's Mills."

July 12, 1633, a grant was made by the town of Lynn to Edward Tomlins for a mill; this was the second in this colony, and was erected on Strawberry brook, flowing from Flax Pond, a few rods west of the junction of Franklin with Boston Street. In 1663, 6 mo. 22, per-

*Capt. William Trask was born in Somersetshire, England, probably in 1587, died in 1666. The house which he built and in which he resided, was situated a few rods in the rear of the present old mansion, No. 158 Boston Street. The present house was built by his son, about 1680. This is the only part of the original estate that is now and has been owned by members of the family in successive generations.

mission was granted to Walter Price, Henry Bartholemew, John and Samuel Gardner, for building a mill on the South River near Mr. Ruck's. This "New Mill" was completed in 1664, and in 1666 the town incorporated this dam into the public travelled way and continued it from the Mill Dam through the South Fields to the little gate in the fence, where it joined the old road to Marblehead. This was on the site of the "South Mills," so called, and now occupied by the Eastern Railroad company for the new Engine House. The town in remuneration for the injury done to the Pickerings (John and Jonathan) by the erection of the dam, and the laying out of the way over the same, which run through their shipyard, granted them a site at the Town's End, or in Hardie's Cove, if they should find it most convenient.

A general discussion followed the reading of the paper, participated in by Messrs. W. P. Upham, James Kimball, the chair, and others. Several suggestions were made having a reference to the subject of priority of the different mills; allusion being made to Saltonstall's Mill in Ipswich, granted in 1635; a description also was given of the early mode of grinding, probably on the principle of the trip hammer, the use of stones having been introduced at a later date. The building of various mill dams and bridges in this vicinity, that of the North Bridge in 1764, was specified. A vote of thanks was passed to Mr. Kimball for his interesting and valuable communication and he was requested to prepare the same for publication in the "Historical Collections."

The Secretary read the following correspondence :—

William S. Elwell, Springfield, Jan. 10; Frank E. Hotchkiss, New Haven, Dec. 30; William Stevens Perry, Geneva, N. Y., Dec. 28, Jan. 7; Geo. Henry Preble, Charlestown, Jan. 14.

The Librarian announced the following additions :—

NATURAL HISTORY OF NEW YORK. Palæontology, vol. 3, pts. 1 and 2; vol. 4; 3 vols. 4to; Albany, 1864, '67.

By Donation.

BUTLER, BENJ. F., M. C. Report of the Department of Agriculture for Nov. and Dec., 1870. Bingham's speech in U. S. H. R., Dec. 20, 1870.

FOOTE, CALEB. Files of several County Papers for 1870.

GREEN, S. A., of Boston. Three pamphlets.

KIMBALL, JAMES. Rules of the Supreme Court of Mass. for 1870, 1 vol. 12mo. Eulogies on Gulian C. Verplanck, 1 vol. 8vo.

LEE, FRANCIS H. Boston Directory for 1865. Bombay Directory for 1863.

LEE, JOHN C. Commercial Bulletin for Dec., 1870, Jan. 7, 1871.

ROPES, NATH'L. A description of Types, 12mo pamph.

SUMNER, CHARLES, U. S. S. Report of the Dep. of Agriculture for Nov. and Dec., 1870.

WATERS, J. LINTON, of Chicago, Ill. Four pamphlets.

By Exchange.

AMERICAN ANTIQUARIAN SOCIETY. Proceedings at Annual Meeting, Oct., 1870.

BOSTON NUMISMATIC SOCIETY. American Journal of Numismatics Jan., 1871.

NEW ENGLAND HISTORIC-GENEALOGICAL SOCIETY. The New England Hist. Geneal. Register, Jan., 1871.

PUBLISHERS. American Literary Gazette. American Naturalist. Essex Banner. Gardeners' Monthly. Gloucester Telegraph. Haverhill Gazette. Historical Magazine. Land and Water. Lawrence American. Little Giant. Lynn Semi-Weekly Reporter. Medical and Surgical Reporter. Nation. Nature. Peabody Press. Quaritch's Catalogue. Salem Observer. Sotheran's Catalogue.



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[Continued from volume ii, page 128.]

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- CHEMUNG and SCHUYLER COUNTIES, N. Y., by H. Child [1868-9].
- CHENANGO COUNTY, N. Y., by H. Child [1869-70].
- CORTLAND COUNTY, N. Y., by H. Child [1869].
- ELMIRA, N. Y., by W. H. Boyd [1860].
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- KINGSTON & RONDOUT, N. Y., by Fitzgerald, Webb & Co. [1866].
- LOWVILLE, N. Y., by J. C. Kimball [1867-8].
- NEW YORK, N. Y., by David Franks [1786, reprint]; by David Longworth [1796-7, 1799-1800, 1809-10]; by Thomas Longworth [1825-6, 1826-7, 1827-8, 1831-2, 1832-3, 1833-4, 1834-5, 1835-6, 1838-9, 1839-40, 1840-1, 1842-3]; by John Doggett [1841-2, 1842-3, 1843-4, 1844-5, 1845-6, 1846-7, 1847-8, 1848-9, 1849-50, 1850-1]; by Charles R. Rode [1850-51]; by Doggett & Rode [1851-2]; by C. R. Rode [1852-3, 1853-4, 1854-5]; by H. Wilson [1852-3, 1853-4, 1854-5, 1855-6, 1856-7, 1857-8, 1858-9, 1859-60, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867]; Business Directory, by H. Wilson [1862-3, 1866-7, 1853-4].
- NIAGARA COUNTY, N. Y., by H. Child [1869].
- ONEIDA COUNTY, N. Y., by A. Boyd [1862-3]; by Waite Brothers & Co. [1866-7]; by H. Child [1869].
- ONONDAGA COUNTY, N. Y., by H. Child [1868-9].
- ORLEANS COUNTY, N. Y., by H. Child [1869].
- OSWEGO, N. Y., by W. Hancock [1856-7]; by John Fitzgerald [1861, 1864-5].
- POTSDAM, N. Y., by J. C. Kimball [1668].
- POUGHKEEPSIE, N. Y., by J. Underhill [1856-7]; by David B. Lent, Jr. [1859-60]; P. & Fishkill Landing [1864-5].
- RENSSELAER COUNTY, N. Y., by H. Child [1870-1].
- ROCHESTER, N. Y., by Elwood & Dewey [1844]; by Jerome & Brother [1847-8]; by D. M. Dewey [1853-4, 1855-6]; by Curtis, Butts & Co. [1861].
- ROME, N. Y., by W. H. Boyd [1857, 1859-60].
- SARATOGA SPRINGS, N. Y., by A. Boyd [1868-9].
- SCHENECTADY, N. Y., by H. Y. Bradt & Co [1864]; by W. H. Boyd [1857]; by H. Y. Bradt [1862-3].
- TOMPKINS COUNTY, N. Y., by H. Child [1868].
- TROY, N. Y., by John F. Prescott [1850-1]; by George Adams [1857]; by Adams, Sampson & Co [1858, 1859, 1860, 1861, 1862].
- SYRACUSE, N. Y., by W. H. Boyd [1857]; Daily Journal [1862-3, 1864-5, 1866-7]; by Andrew Boyd [1868-9, 1869-70].
- WATERTOWN, N. Y., by J. P. Fitch [1840].
- WAYNE COUNTY, N. Y., by H. Child [1867-8].
- WYOMING COUNTY, N. Y., by H. Child [1870-71].

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